

REMARKS

Reconsideration of the claims and the application is respectfully requested.

In this reply, claim 1 is being amended to further clarify what is being claimed. The support for the claim amendments can be found at least in paragraphs [0054-0055], [0060]-[0089] of the originally filed description and throughout the specification. Claims 17-19 are amended by incorporating the features corresponding to the amendments made to their base claim 1. The previously pending claims 2-3 are cancelled. Claim 5 is amended by further defining "resource control equipment" as "distributing route and resource according to QoS requirements of the service traffic flow". New claims 21 and 22 are added, based on for example paragraphs [0055] and [0060] of the originally filed description. New claims 23-40 are added, in which claim 23 is based on the originally filed claim 10 and claims 24-40 are based on the originally filed claims 2-20. Therefore, no new matter is added.

Claim Rejections - 35 USC § 112

Claims 4, 5, and 17-19 stand rejected under 35 USC § 112, first paragraph as allegedly failing to comply with the enablement requirement. Particularly, the Examiner alleges that the specification does not point out "service control equipment" and "resource control equipment". Applicant respectfully submits that the two equipments have been defined clearly in the description. For example, regarding the term "resource control equipment", based on what is disclosed in the description (for example, paragraph [0060] of the originally filed description), Figure 7 and associated description, and implicit in its name, a person of ordinary skill in this

technology will understand that the resource control equipment distributes route and resource according to QoS requirements of the service traffic flow.

Regarding the term “service control equipment”, based on what is disclosed in the description (for example, paragraphs, [0085]-[0087] of the originally filed description) and implicit in its name, a person of ordinary skill in this area of technology will understand that the service control equipment is capable of notifying of the changes of the service traffic flow.

Applicant has further defined “service control equipment” as “notifying of changes of the service traffic flow” and “resource control equipment” as “distributing route and resource according to QoS requirements of the service traffic flow” in the claims. Applicant respectfully believes that the claims 4-5 and 17-19 as amended comply with the enablement requirements under 35 U.S.C. §112, first paragraph.

Claims 17-19 stand rejected under 35 USC § 112, second paragraph, as allegedly being indefinite. Applicant respectfully disagrees. Claim 17 relates to an apparatus for providing QoS guarantee, claim 18 relates to an edge router including such an apparatus and claim 19 relates to a system comprising such an edge router. Though written in the form of “means”, it can be deduced unambiguously, from the disclosure of the description and Figure 7 that the “means” refer to components in the edge router. As commonly known in the field of communication, an edge router and the components therein may be hardware, or a combination of hardware and software. Therefore, claims 17-19 are believed to be definite.

Claim Rejections - 35 USC § 103

Claims 1-3, 6-9, 11-15, 17, 18, and 20 stand rejected under 35 USC §103(a) as allegedly being unpatentable over US Patent Application US 2005/0066053 (Hereinafter "McDysan") in view of US Patent 7,065,084 (Hereinafter "Seo"). Claim 16 stands rejected under 35 USC §103(a) as allegedly being unpatentable over McDysan and Seo in view of US patent 6,804,222 (Hereinafter "Lin"). Claims 4, 5 and 19 stand rejected under 35 USC §103(a) as allegedly being unpatentable over McDysan and Seo in view of US patent 6,606,311 (Hereinafter "Wang").

Applicant respectfully submits that the amended claims 1-22 are unobvious over the cited references at least for the following reasons:

In the amended claim 1, after being created, the service traffic flow classification table can be dynamically updated according to the service traffic flow information obtained from the service control equipment. With the use of the service control equipment, the entries of the classification table can be updated dynamically and can be used to identify various service traffic flows, including video services, or audio services, such as VoD service, IP telephone service, that are initiated or stopped in real time by the user (paragraph 0064 of the originally filed description).

The cited references even if combined do not disclose or suggest every element claimed in independent claim 1, 17-19 as amended, and their respective dependent claims at least by virtue of dependency. For example, those references do not disclose or suggest at least:

- Obtaining service traffic flow information of a service traffic flow from a service control equipment, the service control equipment notifying of changes of the service traffic flow; and

- Updating dynamically table entries of the service traffic flow classification table according to the obtained service traffic flow information.

McDysan relates to a method for data communication that supports a communication protocol that is scalable and yet protects against the DoS attacks to which the conventional Diffserv and other network are susceptible. Paragraph [0047] of McDysan discloses a classifier 230 which classifies packets by reference to a classifier table 232. The packets are classified in accordance with DSCP values in the packets. As can be seen, the classifier table 232 of McDysan is for the classification of packets, instead of traffic flow level.

In contrast, the classification table in the present application is for service traffic flows. In addition, McDysan does not disclose that the classifier table 232 can be updated dynamically nor does it disclose or suggest obtaining the information of service traffic flow from service control equipment which can notify of the changes of the service traffic flow. In fact, in McDysan the classifier classifies packets based on the service of quality levels, which has nothing to do with the service control level.

Wang relates to QoS framework for CDMA 2000. Column 4 Lines 30-34 of Wang discloses that “adaptation control 208 utilizes resource control 210 to determine specific QoS classes for each identified signal’s packet data flow”. As can be see, that passage of Wang does not disclose or suggest obtaining service traffic flow information of a service traffic flow from a service control equipment that can notify of changes of the service traffic flow and updating dynamically table entries of a service traffic flow classification table according to the obtained service traffic flow information. Nowhere in Wang is there a disclosure or suggestion about a solution including the above technical features.

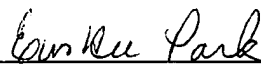
Lin relates to in-band QoS signaling reference model for QoS-driven wireless LANs. Column 9 line 63 to Column 10 line 6 involves a classification table. However, the classification table is for data frames and is not a traffic flow level table. In addition, a timer is set for each entry in the table. When the timer expires before the entry is used for classifying another data frame, the FCE passes the entry to the QME of the same STA and then deletes the entry from the classification table. While the cited passage of Lin relates to the deleting of entries in the classification table, Lin does not disclose or suggest obtaining the information of a service traffic flow from service control equipment that can notify of changes of the service traffic flow so as to update dynamically table entries of a service traffic flow classification table according to the obtained service traffic flow information. Nowhere in Lin is there a disclosure or suggestion about a solution including the above technical features.

In summary, the amended claim 1 of the present application cannot be rendered obvious by the four cited references. Based upon at least the above reasons, applicant respectfully believes that the amended claim 1 of the present application is not obvious over McDysan in view of Seo, Wang, and Lin under 35 USC §103(a). Based upon at least the same reasons, the applicant respectfully believes that the other claims 2-23 of the present application are not obvious over McDysan in view of Seo, Wang, and Lin under 35 USC §103(a).

Furthermore, applicant respectfully submits that new claim 23 is based on the originally filed claim 10, which claim is indicated as being allowable, and therefore new claim 23 and the dependent claims 24-37 are believed to be in condition for allowance. New claims 38-40 also include the allowable subject matter of claim 10, and therefore, they are also allowable.

This communication is believed to be fully responsive to the Office Action and every effort has been made to place the application in condition for allowance. A favorable Office Action is hereby earnestly solicited. If the Examiner believes a telephone conference might expedite prosecution of this case, it is respectfully requested that the Examiner call applicant's attorney at (516) 742-4343.

Respectfully submitted,


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